

REMARKS

Claims 1, 9, 11, 19 and 20 are amended. Claims 21-30 are added. Claims 1-9 and 11-30 are in the application for consideration.

Applicant's independent claims 1, 9, 11, 19 and 20 are amended to recite that the conductive layer is only one of a refractory metal silicide or a refractory metal in physical contact with the doped silicon dioxide, with a spacer, and with the second conductive material. Support for the same is inherent from Applicant's application as filed at p.13, Ins.12-17. Specifically, it is there recited that the contact plug might be clad with "a refractory metal or a refractory metal silicide." Clearly, such contemplates a layer comprising only one of the stated two materials. Accordingly, no new matter is added.

The Hsue patent only discloses fabricating its barrier layer to be a combination of titanium and titanium nitride, a combination of titanium silicide and titanium nitride, or TiW. The reference does not teach nor reasonably infer fabrication of a conductive layer in the context of Applicant's claim which is only one of a refractory metal silicide or a refractory metal. Rather, a titanium nitride or a titanium tungsten compound is always utilized as part of the layer. Accordingly, the reference specifically teaches away from that which Applicant recites in its amended independent claims. Further, it would not be obvious to utilize, for example, only a refractory metal in the context of the Hsue teaching, as its material 22 is a refractory metal, namely tungsten. In no way can Hsue be construed as suggesting utilizing a refractory metal by itself (or a refractory metal silicide

by itself) as its barrier layer as Hsue specifically teaches the requirement of either a titanium tungsten or titanium nitride compound as a barrier layer for its refractory metal tungsten. Had Hsue recognized or utilized its W as a barrier layer, it would not teach the requirement of the additional use of either a titanium tungsten or titanium nitride compound as a barrier layer

The other references of record likewise are not seen to disclose or suggest a gate stack structure associated with a contact plug within a layer of doped silicon dioxide comprising a conductive layer of only one of a refractory metal silicide or a refractory metal in the manner which Applicant recites in each of its independent claims.

As each of the applied Bronner, Lee et al, Hsue, and Ahmad references is lacking in this regard, it is inconceivable that the combination of such references can suggest that which Applicant recites in its respective independent claims 1, 9, 11, 19 and 20. Accordingly, the obviousness rejection should be withdrawn, and action to that end is requested.

Applicant's dependent claims should be allowed as depending from allowable base claims, and for their own recited features which are neither shown nor suggested in the cited art.

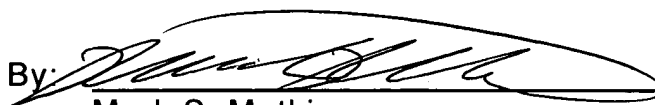
The undersigned notes that the PTO-1449 which it submitted by Supplement Information Disclosure Statement on August 4, 2003 has yet to be initialed, or if so initialed, the undersigned has yet to be provided a copy. A duplicate copy of that 1449 is enclosed herewith. It is requested that the

Examiner initial the same, and provide the undersigned with a copy of the initialed form.

This application is believed to be in immediate condition for allowance.

Respectfully submitted,

Dated: 11-21-03

By: 
Mark S. Matkin
Reg. No. 32,268